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William A. Birdwell
BIRDWELL, JANKE & DURANDO, PLC
Suite 1400
1100 SW Sixth Avenue
Portland, OR 97204

EXAMINER
LOVEL, KIMBERLY M

ART UNIT	PAPER NUMBER
2167	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/666,633	OLSZAK ET AL.
	Examiner	Art Unit	
	Kimberly Lovel	2167	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 September 2006</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-53* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>25 September 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Status

1.   This communication is responsive to the Amendment filed 25 September 2006.

2.   Claims 1-53 are pending in this application. Claims 1, 24, 31, 38, 41 and 50 are

independent. Claims 1, 3, 6, 11, 16, 19-24, 26, 31, 38, 41, 44, 47, 50 and 53 have been

amended. This action is made Final.

3.   The rejections of claims 50-52 as being anticipated by US Patent No 6,941,323

to Galperin; claims 1-3, 5-6, 11, 17, 24-26, 31-33 and 53 as being unpatentable over US

PGPub 2003/0048310 to Hart in view of US Patent No 7,010,742 to Hsu et al; Claim 4

as being unpatentable over US PGPub 2003/0048310 to Hart in view of US Patent No

7,010,742 to Hsu et al and further in view of US Patent No 5,436,637 to Gayraud et al;

claims 7-9, 12-14, 27-29 and 34-36 as being unpatentable over US PGPub

2003/0048310 to Hart in view of US Patent No 7,010,742 to Hsu et al and further in

view of US Patent No 6,799,176 to Page; claims 7, 10, 12, 15, 27, 30, 34 and 37 as

being unpatentable over US PGPub 2003/0048310 to Hart in view of US Patent No

7,010,742 to Hsu et al and further in view of the prior art admitted in US PGPub

2003/0074369 to Schuetze et al; claims 16 and 18 as being unpatentable over US

PGPub 2003/0048310 to Hart in view of US Patent No 7,010,742 to Hsu et al and

further in view of the article "Prefetching Hyperlinks" by Dan Duchamp; claim 23 as

being unpatentable over US PGPub 2003/0048310 to Hart in view of US Patent No

7,010,742 to Hsu et al and further in view of by US Patent No 6,941,323 to Galperin;

and claims 38-49 as being unpatentable over US PGPub 2003/0048310 to Hart in view

of US Patent No 7,010,742 to Hsu et al in view of the article "Mining Web Logs for

Prediction Mod is in WWW Caching and Prefetching" by Yang et al have been

withdrawn based on the amendment.

Drawings

4.   The objections to Fig 1 are withdrawn as necessitated by the amendment.

Specification

5.   The objection to the specification is withdrawn as necessitated by the

amendment.

Claim Objections

6.   **Claims 6, 11 and 19-23** objected to because of the following informalities:

Claim 6 recites "searching (a)" within at least one image record. It is suggested

that the limitation which is incorporated by "(a)" be clearly cited in claim 6 in order to

clarify the claim language.

Claims 11 and 19-23 are objected to for the same reasons as claim 6.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8.   The rejections of claims 3, 26, 33, 40, 43, 46, 49 and 52 have been withdrawn as necessitated by amendment and arguments.

9.   **Claim 1** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites "identifying, within one or more image records, first image data within." It seems as if the second "within" should be deleted. Therefore, the examiner is interpreting the limitation to mean that there is one or more image records and first image data is identified within the one or more image records.

Claims 7-10 and 12-15 recite the limitation "said data objects" in line 2. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 101

10.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11.   **Claims 1-53** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The independent claims are method claims. In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result.

For the result to be tangible, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claims yields creating links and examining links. An example of a tangible result would be storing the links in a database or displaying results.

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

14.   **Claims 1-3, 5-7, 11, 17, 24-27, 31-34 and 53 are rejected under 35 U.S.C.**

103(a) as being unpatentable over WO 01/08083 to R. Gonzalez (hereafter

Gonzalez) in view of US Patent No 6,862,586 to Kreulen et al (hereafter Kreulen).

Referring to claim 1, Gonzalez discloses a method for referencing image data,

comprising the steps of:

identifying [selecting], within one or more image records, first image data [an

initial image object] (see page 10, lines 13-14) within;

identifying [selecting], within said one or more image records [all other image

objects stored in the system], second image data [the object that generates the lowest

mean square error against the current object] distinct from said first image data [the

second image data is considered to be distinct from the second image data since the

attributes of the initial image is compared to the attributes of all other image objects]

(see page 10, lines 13-17); and

creating an electronic first link [linking] between said first image data [the current

object] and said second image data [the object that generates the lowest mean square

error] (see page 10, lines 16-17).

Gonzalez discloses searching [surfing] the linked image data (see page 4, lines

11-14), however, Gonzalez fails to explicitly disclose the further limitation wherein

searching includes at least one of (a) examining a plurality of links to and from said

portion, (b) determining navigation sequences that include said first link, and (c)

parametrically characterizing said portion to obtain a characterizing vector and

comparing said characterizing vector with a query vector. Kreulen discloses a database

of hyperlinked objects, including the further step of searching for at least a portion of the

linked image data including at least one of (a) examining a plurality of links to [in-links]

and from [out-links] said portion (see column 7, lines 14-41), (b) determining navigation

sequences that include said first link, and (c) parametrically characterizing said portion

to obtain a characterizing vector and comparing said characterizing vector with a query

vector in order to improve the accuracy of the search results.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to utilize the step of examining the links as disclosed by Kreulen with the

searching step of Gonzalez. One would have been motivated to do so in order to

improve the accuracy of the search results.

Referring to claim 2, the combination of Gonzalez and Kreulen (hereafter

Gonzalez/Kreulen) discloses the method of claim 1, wherein at least one of the steps of

the method is executed by a computer (Kreulen: see column 8, lines 66 – column 9, line

9).

Referring to claim 3, Gonzalez/Kreulen discloses the method of claim 2, further

comprising providing a machine readable medium embodying a program of instructions

executable by the computer to perform said at least one of the steps of the method

(Kreulen: see column 9, lines 25-34).

Referring to claim 5, Gonzalez/Kreulen discloses the method of claim 1,

wherein said link is a hyperlink, wherein said hyperlink points to said other portion of the

image data (Gonzalez: see page 2, lines 30-31).

Referring to claim 6, Gonzalez/Kreulen discloses the method of claim 1,

including said searching (a) within at least one image record (Kreulen: see column 7,

lines 14-41).

Referring to claim 7, Gonzalez/Kreulen discloses the method of claim 6,

wherein said step of examining includes computing respective metrics [frequencies]

derived from said links for said data objects (Kreulen: see column 5, lines 1-12).

Referring to claim 11, Gonzalez/Kreulen discloses the method of claim 1,

including said searching (a) within a plurality of image records (Kreulen: see column 7,

lines 14-41).

Referring to claim 17, Gonzalez/Kreulen discloses the method of claim 1,

further comprising creating a second electronic link in another image record as a result

of recognizing the existence of said electronic link (Gonzalez: see page 10, lines 13-16).

23. The method of claim 1, including said searching (c).

Referring to claim 24, Gonzalez discloses a method for referencing image data,

comprising producing one or more image records within which or between are one or

more electronic links to the image data (see page 10, lines 16-17).

Gonzalez discloses searching [surfing] the linked image data (see page 4, lines

11-14), however, Gonzalez fails to explicitly disclose the further limitation wherein

searching includes examining said one or more links. Kreulen discloses a database of

hyperlinked objects, including the further step of searching by examining one or more links (see column 7, lines 14-41) in order to improve the accuracy of the search results.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the step of examining the links as disclosed by Kreulen with the searching step of Gonzalez. One would have been motivated to do so in order to improve the accuracy of the search results.

Referring to claim 25, the combination of Gonzalez and Kreulen (hereafter Gonzalez/Kreulen) discloses the method of claim 24, wherein at least one of the steps of the method is executed by a computer (Kreulen: see column 8, lines 66 – column 9, line 9).

Referring to claim 26, Gonzalez/Kreulen discloses the method of claim 25, further comprising providing a machine readable medium embodying a program of instructions executable by the computer to perform said at least one of the steps of the method (Kreulen: see column 9, lines 25-34).

Referring to claim 27, Gonzalez/Kreulen discloses the method of claim 24, wherein said step of examining includes computing respective metrics [frequencies] derived from said links for said data objects (Kreulen: see column 5, lines 1-12).

Referring to claim 31, Gonzalez discloses a method for referencing image data, comprising producing one or more image records within which or between are a plurality of electronic links to the image data (see page 10, lines 16-17).

Gonzalez discloses searching [surfing] the linked image data (see page 4, lines 11-14), however, Gonzalez fails to explicitly disclose the further limitation wherein

searching includes examining said one or more links. Kreulen discloses a database of hyperlinked objects, including the further step of searching by examining one or more links (see column 7, lines 14-41) in order to improve the accuracy of the search results.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the step of examining the links as disclosed by Kreulen with the searching step of Gonzalez. One would have been motivated to do so in order to improve the accuracy of the search results.

Referring to claim 32, the combination of Gonzalez and Kreulen (hereafter Gonzalez/Kreulen) discloses the method of claim 31, wherein at least one of the steps of the method is executed by a computer (Kreulen: see column 8, lines 66 – column 9, line 9).

Referring to claim 33, Gonzalez/Kreulen discloses the method of claim 32, further comprising providing a machine readable medium embodying a program of instructions executable by the computer to perform said at least one of the steps of the method (Kreulen: see column 9, lines 25-34).

Referring to claim 34, Gonzalez/Kreulen discloses the method of claim 31, wherein said step of examining includes computing respective metrics [frequencies] derived from said links for said data objects (Kreulen: see column 5, lines 1-12).

Referring to claim 53, Gonzalez/Kreulen discloses the method of claim 1, further comprising providing a machine readable medium embodying a program of instructions executable by the machine to perform the method (Kreulen: see column 9, lines 25-34).

15.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO
01/08083 to R. Gonzalez in view of US Patent No 6,862,586 to Kreulen et al as
applied to claim 1 above, and further in view of US Patent No 5,436,637 to
Gayraud et al (hereafter Gayraud et al).

   Referring to claim 4, Gonzalez/Kreulen teaches the concept of linking data,
however, Hart/Hsu fails to explicitly teach the further limitation of a roll-over link.
Gayraud et al teaches a method of linking data objects, including the further limitation of
a roll-over link. In particular, Gayraud et al discloses a method similar to that of claim 1,
wherein said link is a roll-over link, the method further comprising adding metadata to
the image data (see column 3, line 46 – column 4, line 5 –the concept of the system
identifying the object with an appropriate descriptor hint when the screen cursor touches
an object is considered to represent a *roll-over link*; the hints are considered to
represent the *metadata*) in order to increase the abilities of a search engine to identify
visual features that relate to an image without having to transfer the user to a new
document as is the case with hyperlinking.

   It would have been obvious to one of ordinary skill in the art at the time the
invention was made to use Gayraud et al's concept of roll-over links containing hints as
one of the type of links utilized to reference image data in the method provided by
Gonzalez/Kreulen. One would have been motivated to do so in order to increase the
abilities of a search engine to identify visual features that relate to an image without
having to transfer the user to a new document as is the case with hyperlinking.

16.   Claims 7-9, 12-14, 27-29 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/08083 to R. Gonzalez in view of US Patent No 6,862,586 to Kreulen et al as applied respectively to claims 7, 11, 24 and 31 above, and further in view of US Patent No 6,799,176 to Page (hereafter Page).

Referring to claim 7, Gonzalez/Kreulen discloses examining the links by determining frequencies. However, Gonzalez/Kreulen does not explicitly teach the concept of general metrics. Page discloses a method for scoring documents in a linked database, including the further limitation wherein said step of examining includes computing respective metrics [citation scores and importance scores] derived from said links for said data objects (see column 4, line 64 – column 5, line 30 and column 7, lines 11-20) in order to increase accuracy in the step of link authoring.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Page's method of computing metrics as a subcomponent to Gonzalez/Kreulen's method of examining links. One would have been motivated to do so in order to increase accuracy in the step of link authoring.

Referring to claims 12, 27 and 34, the method of claim 12, which is dependent on the method of claim 11; the method of claim 27, which is dependent on the method of claim 24; and the method of claim 34, which is dependent on the method of claim 31 are rejected on the same grounds as the method of claim 7, which is dependent on the method of claim 6.

Referring to claim 8, the combination of Gonzalez/Kreulen and Page (hereafter Gonzalez/Kreulen/Page) teaches the method of claim 7, wherein said metrics are

citation-rank scores, the method further comprising ordering [ranking] said data objects according to the respective said citation-rank scores (see column 4, line 64 – column 5, line 30).

Referring to claims 13, 28 and 35 the method of claim 13, which is dependent on the method of claim 12; the method of claim 28, which is dependent on the method of claim 27; and the method of claim 35, which I dependent on the method of claim 34 are rejected on the same grounds as the method of claim 8, which is dependent on the method of claim 7.

Referring to claim 9, Gonzalez/Kreulen/Page teaches the method of claim 7, wherein said metrics are importance scores, the method further comprising ordering [ranking] said data objects according to the respective said importance scores (see column 7, lines 11-20).

Referring to claims 14, 29 and 36, the method of claim 14, which is dependent on the method of claim 12; the method of claim 29, which is dependent on the method of claim 27; and the method of claim 36 which is dependent on the method of claim 34 are rejected on the same grounds as the method of claim 9, which is dependent on the method of claim 7.

17.   **Claims 7 and 10; 12 and 15; 27 and 30; and 34 and 37 are rejected under 35**

U.S.C. 103(a) as being unpatentable over WO 01/08083 to R. Gonzalez in view of

US Patent No 6,862,586 to Kreulen et al as applied respectively to claims 6, 11, 24

and 31 above, and further in view of the prior art admitted in US PGPub

2003/0074369 to Schuetze et al (hereafter Schuetze et al).

Referring to claim 7, Gonzalez/Kreulen discloses examining the links by

determining frequencies. However, Gonzalez/Kreulen does not explicitly teach the

concept of general metrics. Schuetze et al discloses a method for identifying similarities

among objects in a collection, including the further limitation wherein said step of

examining includes computing respective metrics derived from said links for said data

objects (see [0013]) in order to increase accuracy in the step of link authoring.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use Schuetze et al's method of computing metrics with

Gonzalez/Kreulen's method of examining links. One would have been motivated to do

so in order to increase accuracy in the step of link authoring.

Referring to claims 12, 27 and 34, the method of claim 12, which is dependent

on the method of claim 11; the method of claim 27, which is dependent on the method

of claim 24; and the method of claim 34 which is dependent on the method of claim 31

are rejected on the same grounds as the method of claim 7, which is dependent on the

method of claim 6.

Referring to claim 10, the combination of Gonzalez/Kreulen and Schuetze et al

(hereafter Gonzalez/Kreulen/Schuetze) discloses the method of claim 7, wherein said

metrics include at least one of hub and authority scores, the method further comprising

ordering said data objects according to the respective said at least one of hub and

authority scores (Schuetze: see [0013]).

Referring to claims 15, 30 and 37, the method of claim 15, which is dependent

on the method of claim 12; the method of claim 30, which is dependent on the method

of claim 27; and the method of claim 37, which is dependent on the method of claim 34

are rejected on the same grounds as the method of claim 10, which is dependent on the

method of claim 7.

18.   Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over WO 01/08083 to R. Gonzalez in view of US Patent No 6,862,586 to Kreulen et

al as applied respectively to claims 1 and 17 above, and further in view of the

article "Prefetching Hyperlinks" by Dan Duchamp (hereafter Duchamp).

Referring to claim 16, Gonzalez/Kreulen discloses a method for creating an

electronic link between a point of reference and another portion of the image data.

However, Gonzalez/Kreulen fails to teach the further limitation of pre-fetching the data.

Duchamp discloses a method for pre-fetching hyperlinked data (see abstract), including

the further limitation of pre-fetching said portion as a result of recognizing the existence

of said electronic link (see section 2.1: Software Systems – each of the three examples

pre-fetch the data based on the existence of a hyperlink) in order to improve client

latency and wasted network bandwidth.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Duchamp's method of pre-fetching hyperlinks with Gonzalez/Kreulen's method of creating links. One would have been motivated to do so in order to improve client latency and wasted network bandwidth.

Referring to claim 18, Gonzalez/Kreulen discloses a method for creating a second electronic link in another image record as a result of recognizing the existence of said electronic link. However, Gonzalez/Kreulen fails to disclose the further limitation of pre-fetching a data object. Duchamp discloses a method for pre-fetching hyperlinked data (see abstract). In particular, Duchamp discloses a method similar to that of claim 17, further comprising pre-fetching a data object as a result of recognizing the existence of said electronic link (Duchamp: see section 2.1: Software Systems – each of the three examples pre-fetch the data based on the existence of a hyperlink) in order to improve client latency and wasted network bandwidth.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Duchamp's method of pre-fetching hyperlinks as a subcomponent to Gonzalez/Kreulen's method of creating links. One would have been motivated to do so in order to improve client latency and wasted network bandwidth.

19.   Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable

over WO 01/08083 to R. Gonzalez in view of US Patent No 6,862,586 to Kreulen et

al as applied to claim 1 above, and further in view of the article "Mining Web Logs

for Prediction Mod is in WWW Caching and Prefetching" by Yang et al (hereafter

Yang et al).

Referring to claim 19, Gonzalez/Kreulen discloses a method for referencing

data. However, Gonzalez/Kreulen fails to explicitly teach the further limitation of

including said searching (b) within at least one image record by determining from

among a plurality of navigation sequences for navigating said one or more image

records one or more most frequent navigation sequences, and pre-fetching a data

object as a result of recognizing said one or more most frequent navigation sequences.

Yang et al discloses a method for pre-fetching data (see abstract), including the further

limitation of searching (b) within at least one image record by determining from among a

plurality of navigation sequences for navigating said one or more image records one or

more most frequent navigation sequences (Yang et al: see section 3: Building

Association-Based Prediction Models, lines 1-5; section 3.3: Constructing Association

Rules; and section 3.4: Prediction Algorithm), and pre-fetching a data object as a result

of recognizing said one or more most frequent navigation sequences (Yang et al: see

section 5: Integrated Predictive Caching and Prefetching, lines 19-22) in order to

improve access performance.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use Yang et al's method of navigation sequences and pre-

fetching hyperlinks as a subcomponent to Gonzalez/Kreulen's method of creating links.

One would have been motivated to do so in order to improve access performance

(Yang et al: see abstract).

Referring to claim 20, Gonzalez/Kreulen discloses a method for referencing

data. However, Gonzalez/Kreulen fails to explicitly teach the further limitation of

including said searching (b) within at least one image record by determining from

among a plurality of navigation sequences for navigating said one or more image

records one or more most frequent navigation sequences, and creating a new electronic

link as a result of recognizing said one or more most frequent navigation sequences.

Yang et al discloses a method for pre-fetching data (see abstract), including the further

limitation of searching (b) within at least one image record by determining from among a

plurality of navigation sequences for navigating said one or more image records one or

more most frequent navigation sequences (Yang et al: see section 3: Building

Association-Based Prediction Models, lines 1-5; section 3.3: Constructing Association

Rules; and section 3.4: Prediction Algorithm), and creating a new electronic link as a

result of recognizing said one or more most frequent navigation sequences (see section

5: Integrated Predictive Caching and Prefetching) in order to improve access

performance.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use Yang et al's method of navigation sequences and creation

hyperlinks as a subcomponent to Gonzalez/Kreulen's method of creating links. One

would have been motivated to do so in order to improve access performance (Yang et al: see abstract).

Referring to claim 21, Gonzalez/Kreulen discloses a method for referencing data. However, Gonzalez/Kreulen fails to explicitly teach the further limitation of including said searching (b) within a plurality of image records by determining from among a plurality of navigation sequences for navigating said one or more image records one or more most frequent navigation sequences, and pre-fetching a data object as a result of recognizing said one or more most frequent navigation sequences. Yang et al discloses a method for pre-fetching data (see abstract), including the further limitation of searching (b) within a plurality of image records by determining from among a plurality of navigation sequences for navigating said one or more image records one or more most frequent navigation sequences (Yang et al: see section 3: Building Association-Based Prediction Models, lines 1-5; section 3.3: Constructing Association Rules; and section 3.4: Prediction Algorithm), and pre-fetching a data object as a result of recognizing said one or more most frequent navigation sequences (Yang et al: see section 5: Integrated Predictive Caching and Prefetching, lines 19-22) in order to improve access performance.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yang et al's method of navigation sequences and pre-fetching hyperlinks as a subcomponent to Gonzalez/Kreulen's method of creating links. One would have been motivated to do so in order to improve access performance (Yang et al: see abstract).

Referring to claim 22, Gonzalez/Kreulen discloses a method for referencing data. However, Gonzalez/Kreulen fails to explicitly teach the further limitation of including said searching (b) within at least one image record by determining from among a plurality of navigation sequences for navigating said one or more image records one or more most frequent navigation sequences, and creating a new electronic link as a result of recognizing said one or more most frequent navigation sequences. Yang et al discloses a method for pre-fetching data (see abstract), including the further limitation of searching (b) within at least one image record by determining from among a plurality of navigation sequences for navigating said one or more image records one or more most frequent navigation sequences (Yang et al: see section 3: Building Association-Based Prediction Models, lines 1-5; section 3.3: Constructing Association Rules; and section 3.4: Prediction Algorithm), and creating a new electronic link as a result of recognizing said one or more most frequent navigation sequences (see section 5: Integrated Predictive Caching and Prefetching) in order to improve access performance.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yang et al's method of navigation sequences and creation of hyperlinks as a subcomponent to Gonzalez/Kreulen's method of creating links. One would have been motivated to do so in order to improve access performance (Yang et al: see abstract).

20.   **Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over US WO 01/08083 to R. Gonzalez in view of US Patent No 6,862,586 to Kreulen et al as applied to claim 1 above, and further in view of by US Patent No 6,941,323 to Galperin.**

Referring to claim 23, Gonzalez/Kreulen discloses a method for referencing image data. However, Hart/Hsu fails to explicitly teach the further limitation of parametrically characterizing a portion of image data. Galperin teaches a method for referencing image data (see abstract and column 3, lines 50-54). In particular, Galperin discloses a method similar to that of claim 1, further comprising parametrically characterizing said portion of image data to obtain a characterizing vector, and searching for said portion by comparing said characterizing vector with a predetermined query vector (see column 2, lines 41-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Galperin's method for parametrically characterizing data as a subcomponent to Gonzalez/Kreulen's method of referencing images. One would have been motivated to do so in order to improve the proportion of relevant images retrieved (Galperin: see abstract).

21.   **Claims 38-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/08083 to R. Gonzalez in view of the article "Mining Web Logs for Prediction Mod is in WWW Caching and Prefetching" by Yang et al (hereafter Yang et al).**

Referring to claim 38, Gonzalez discloses a method for referencing data comprising producing an image record within which are a plurality of electronic links (see page 10, lines 13-16). However, Gonzalez fails to explicitly teach the further limitation of determining from among a plurality of navigation sequences for navigating said image record one or more most frequent navigation sequences, and pre-fetching a data object as a result of recognizing said one or more most frequent navigation sequences. Yang et al disclose a method for pre-fetching data (see abstract), including the further limitation of searching (b) within at least one image record by determining from among a plurality of navigation sequences for navigating said one or more image records one or more most frequent navigation sequences (Yang et al: see section 3: Building Association-Based Prediction Models, lines 1-5; section 3.3: Constructing Association Rules; and section 3.4: Prediction Algorithm), and pre-fetching a data object as a result of recognizing said one or more most frequent navigation sequences (Yang et al: see section 5: Integrated Predictive Caching and Prefetching, lines 19-22) in order to improve access performance.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yang et al's method of navigation sequences and pre-fetching hyperlinks as a subcomponent to Gonzalez's method of creating links. One

would have been motivated to do so in order to improve access performance (Yang et

al: see abstract).

Referring to claim 39, the combination of Gonzalez and Yang et al (hereafter

Gonzalez/Yang) discloses the method of claim 38, wherein at least one of the steps of

the method is executed by a computer (Kreulen: see column 7, lines 14-41).

Referring to claim 40, Gonzalez/Yang discloses the method of claim 39, further

comprising providing a machine readable medium embodying a program of instructions

executable by the computer to perform said at least one of the steps of the method

(Kreulen: see column 9, lines 25-34).

Referring to claim 41, Gonzalez discloses a method for referencing data

comprising producing an image record within which are a plurality of electronic links

(see page 10, lines 13-16). However, Gonzalez fails to explicitly teach the further

limitation of determining from among a plurality of navigation sequences for navigating

said image record one or more most frequent navigation sequences, and creating a new

electronic link as a result of recognizing said one or more most frequent navigation

sequences. Yang et al disclose a method for pre-fetching data (see abstract), including

the further limitation of searching (b) within at least one image record by determining

from among a plurality of navigation sequences for navigating said one or more image

records one or more most frequent navigation sequences (Yang et al: see section 3:

Building Association-Based Prediction Models, lines 1-5; section 3.3: Constructing

Association Rules; and section 3.4: Prediction Algorithm), and creating a new electronic

link as a result of recognizing said one or more most frequent navigation sequences

(see section 5: Integrated Predictive Caching and Prefetching) in order to improve

access performance.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use Yang et al's method of navigation sequences and creation of

hyperlinks as a subcomponent to Gonzalez's method of creating links. One would have

been motivated to do so in order to improve access performance (Yang et al: see

abstract).

Referring to claim 42, the combination of Gonzalez and Yang et al (hereafter

Gonzalez/Yang) discloses the method of claim 41, wherein at least one of the steps of

the method is executed by a computer (Gonzalez: see page 4, lines 5-8).

Referring to claim 43, Gonzalez/Yang discloses the method of claim 42, further

comprising providing a machine readable medium embodying a program of instructions

executable by the computer to perform said at least one of the steps of the method

(Gonzalez: see page 4, lines 5-8).

Referring to claim 44, Gonzalez/Yang discloses the method of claim 38,

comprising a plurality of image records between which are a plurality of electronic links

(see abstract – there are links between a set of images).

Referring to claim 45, the combination of Gonzalez and Yang et al (hereafter

Gonzalez/Yang) discloses the method of claim 44, wherein at least one of the steps of

the method is executed by a computer (Gonzalez: see page 4, lines 5-8).

Referring to claim 46, Gonzalez/Yang discloses the method of claim 45, further

comprising providing a machine readable medium embodying a program of instructions

executable by the computer to perform said at least one of the steps of the method (Gonzalez: see page 4, lines 5-8).

Referring to claim 47, Gonzalez/Yang discloses the method of claim 38, comprising a plurality of image records between which are a plurality of electronic links (see abstract – there are links between a set of images).

Referring to claim 48, Gonzalez/Yang discloses the method of claim 47, wherein at least one of the steps of the method is executed by a computer (Gonzalez: see page 4, lines 5-8.

Referring to claim 49, Gonzalez/Yang discloses the method of claim 48, further comprising providing a machine readable medium embodying a program of instructions executable by the computer to perform said at least one of the steps of the method (Gonzalez: see page 4, lines 5-8).

22.   **Claims 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 6,941,323 to Galperin (hereafter Galperin) in view of US PGPub 2004/0044952 to Jiang et al (hereafter Jiang).**

Referring to claim 50, Galperin discloses a method for referencing pathology image data (see abstract and column 3, lines 50-54), comprising parametrically characterizing a portion of image data using N-gram encoding to obtain an N-gram characterizing vector, and searching for said portion by comparing said characterizing vector with a predetermined query vector (see column 2, lines 41-55).

However, Galperin fails to explicitly disclose the further limitation wherein the

encoding is N-gram and the characterizing vector is N-gram. Jiang discloses the

retrieval of information using a feature vector and a query vector (see abstract),

including the further limitation wherein the encoding is N-gram and the characterizing

vector is N-gram (see [0039]).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to utilize n-grams as disclosed by Jiang with the method of Galperin for

parametrically characterizing data. One would have been motivated to do so in order to

increase the accuracy of returning useful results to the user by introducing the concept

of probability.

Referring to claim 51, the combination of Galperin and Jiang (hereafter

Galperin/Jiang) discloses the method of claim 50, wherein at least one of the steps of

the method is executed by a computer (Kreulen: see column 8, lines 66 – column 9, line

9).

Referring to claim 52, Galperin/Jiang discloses the method of claim 51, further

comprising providing a machine readable medium embodying a program of instructions

executable by the computer to perform said at least one of the steps of the method

(Kreulen: see column 9, lines 25-34).

Response to Arguments

23.   Applicant's arguments with respect to claims 1-53 have been considered but are

moot in view of the new ground(s) of rejection.

24.   Regarding applicants' arguments concerning the 101 rejections of claims 1-53 on

page 14, a new 101 rejection has been written based on the amendments and to further

clarify the rejection. Also referring to the statement "all of the claims manipulate data

representing physical objects, by processing image data," the examiner respectfully

disagrees. An electronic link is being creating between the images and the images are

being searched, however, the images themselves are not being transformed.

Conclusion

25.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly Lovel
Examiner
Art Unit 2167

8 December 2006
kml

JOHN COTTINGHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100